Options and functions in the English clause

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OPTIONS AND FUNCTIONS IN THE ENGLISH CLAUSE*

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In his excellent summary of the work of the Prague school,[1] Josef Vachek draws attention to the development by Czechoslovak linguists of the 'functionalist' view of linguistic structure. One of the characteristics of this approach has been the recognition of several components in the organization of the grammar of a language, a conception which Vachek shows to be derivable from the work of Mathesius and of Bühler. The importance of this conception appears very clearly from a study of the systems and structures of the English clause.

The systems having the clause as their point of origin group themselves into three sets which I have referred to elsewhere under the headings of transitivity, mood and theme.[2] These labels refer specifically to sets of clause systems, which are however relatable to these general components of the grammar. Those of transitivity belong to that area which Vachek derives from Bühler's 'Darstellungsfunktion' and glosses as 'informing of the factual, objective content of extralinguistic reality';[3] Daneš calls it the 'semantic structure' of the sentence.[4] Those of mood express speech function, the relations among the participants in a speech situation and the speech roles assigned by the speaker to himself and his interlocutors; this includes most of Poldauf's 'third syntactical plan',[5] and embraces both of Bühler's additional functions—the speaker's attitude and his attempt to influence the hearer—though excluding (as outside grammar) the paralinguistic indexical signals. Theme is the clausal part of Mathesius' 'functional sentence analysis',[6] Daneš' 'organization of utterance',[7] which continues to be studied extensively by Firbas and others;[8] this concerns the structuring of the act of communication within the total framework of a discourse, the delimitation of message units and the distribution of information within them.

Thus the English clause embodies options of three kinds, experiential, interpersonal and intratextual, specifying relations among (respectively) elements of the speaker's experience, participants defined by roles in the speech situation, and parts of the discourse. Although the clause options do not exhaust the expression of these semantic relations—other syntactic resources are available, quite apart from the selection of lexical items—the clause provides the domain for many of the principal options associated with these three components. At the same time it is useful to recognize a fourth component, the logical, concerned with the and's and or's and if's of language; this is often subsumed under the first of those above (e.g. by Daneš; cf. n. 4 above) with some general label such as 'cognitive', but it is represented by a specific set of structural resources (hence not figuring among the clause options) and should perhaps rather be considered separately. Let us then suggest four such generalized components in the organization of the grammar of a language, and refer

to them as the components of extralinguistic experience, of speech function, of discourse organization and of logical structure.

The first three then enter into, and collectively exhaust, the determination of English clause structure. In other words, structural function in the clause is fully derivable from systems of options in transitivity, mood and theme. But no one of these sets of options by itself fully specifies the clause structure; each one determines a different set of structural functions. Deriving from options in transitivity are functions such as actor, goal and beneficiary; from modal options, those such as subject, predicator and WH- element; from thematic options, functions such as theme, given and new. The same item occupies simultaneously a number of distinct 'roles' in the structure, so that the element of structure is a conflation of functions from different sources: in *John threw the ball*, *John* is at once actor, subject and theme.

Let us consider, as an example, a clause taken from a recording of spontaneous informal conversation, the final clause (beginning at *well then*) in the passage *and he was accepted, became a court painter, well then surely he must have made a fair amount of money*. Phonologically the clause was two tone groups, both tone 1, the first tonic (nucleus) at *surely* and the second at *money*:[9]

//1 well then surely// 1 he must have made a fair amount of money//

Structurally, the transitivity functions are actor *he*, process (*must*) *have made*, range *a fair amount of money*; modal (1) subject *he*, predicator *must have made*, complement *a fair amount of money*, (2) modality *surely... must* (*have made*); thematic (1) theme *well then* + *surely* + *he*, rheme *must have made a fair amount of money*, (2) conjunctive *well then*, anaphoric *he*, (3) given *well then* + *he must have made*, new *surely* + *a fair amount of money*.[10] The structural description of the clause will be a string (since we are not considering group structure, and there is no embedding) of elements each of which is a complex of structural functions:

theme/conjunctive + modality/theme/new + actor/subject/theme/anaphoric +
+ process/predicator/modaliiy + range/new

(omitting complement, rheme and given as not needing to be specified); together with the phonological specification of a tone group boundary after *surely* and of both tone groups as tone 1.

The structural functions, and the intonation features, can be shown to be the realizations of options in the three areas of transitivity, mood and theme. Thus, for example, the presence of the function 'subject' in the clause realizes the option 'indicative' in the mood system; that of 'actor' realizes the option 'extensive' in the transitivity system, and so on. The grammar of the clause may be represented as a network of such options, to each of which is attached a realization statement showing the structural 'output' of that option. In some cases, such as those just exemplified, the realization statement merely specifies the presence of a certain structural function; but in other cases it may have the effect of ordering one function with respect to another or to initial or final position in the syntagm. But it may also specify the conflation of two functions into a single element of structure: for example the option 'operative' conflates the functions of subject and actor.

Underlying the structural description of the clause, therefore, is a systemic description in which the clause is represented in terms of the options selected. Figure 1 shows a simplified systemic description of the clause cited above, while figure 2 shows the portion of the clause system network from which that description is derived.[11] Figure 1 may be expressed lineally as follows (where / indicates simultaneity, : hierarchy, and I_i denotes an intersection):

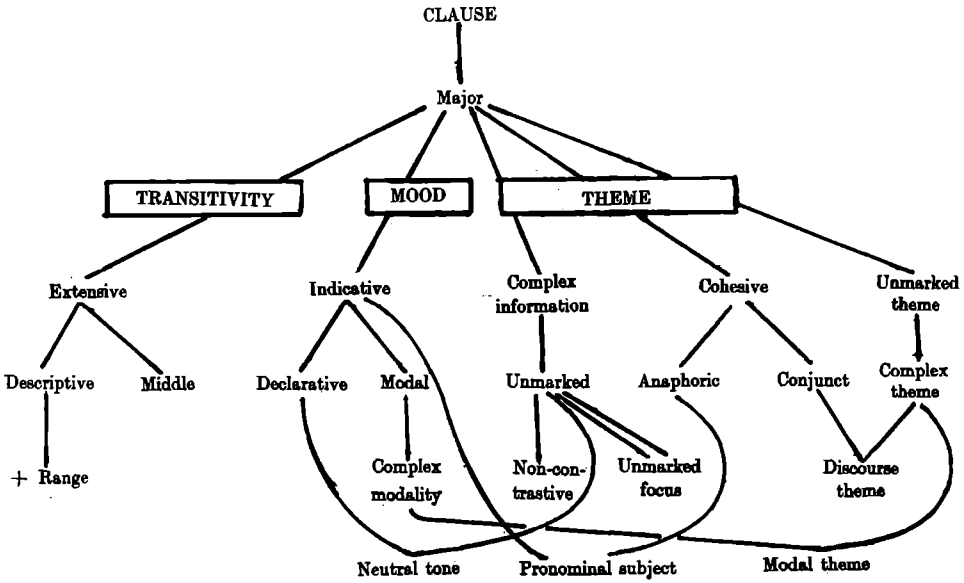


Figure 1

(major : (extensive : ((descriptive: + range)/middle))/(indicative: ((declarative: I_1, neutral tone)/(modal: (complex modality: I_2, modal theme))/I_3, pronominal subject))/(complex information structure: unmarked information: (non-contrastive /unmarked focus/I_1/unmarked focus))/(cohesive: ((anaphoric : I_3)/(conjunct: I_4, discourse theme)))/(unmarked theme: complex theme: (I_4/I_2)))

We define a system as a set of options together with an entry condition, such that if the entry condition is satisfied one option from the set must be selected. The place of each option in the grammar is specified by the location, in the system network, of the system of which it is a term: thus the option 'declarative' contrasts with 'interrogative' in a two-option system the entry condition to which is'indicative'. Table 1 lists, following the entry condition, each of the options appearing in the systemic description of the clause just cited, together with its realization statement; the final column shows the partial structure that results from the application of the realization statement. Since simultaneous options are unordered, the realizations could apply in a large number of different sequences; the partial structures shown here assume the options to be realized in the order listed. This does not affect the final 'partial structure', which is the structural representation of the clause and has the same form through whichever sequence of options it has been built up.[12]

Thus the clause is represented in the grammar as a set of features partially ordered in 'delicacy'; the features are options in the various systems of transitivity, mood and theme. The description shows not merely what options have been selected but also how these options are interrelated. The systemic representation is then realized as structure, with linear ordering; the example shows a simple string, though the total structural description at all ranks, and including any embedding, is a minimally bracketed tree structure.[13] Each element of this structure is a complex of functions,

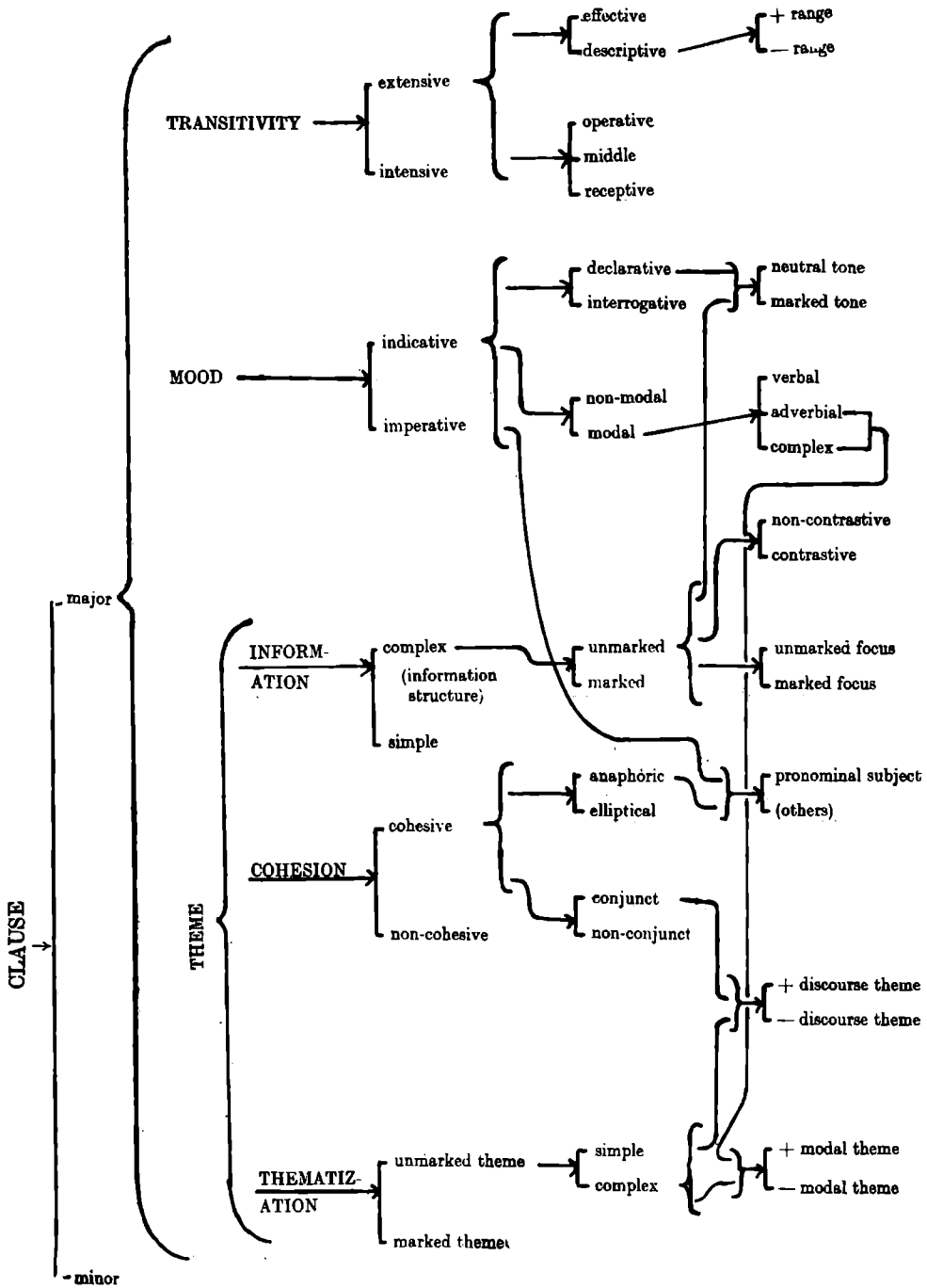

CLAUSE
major
minor
TRANSITIVITY
extensive
intensive
effective
descriptive
+ range
— range
operative
middle
receptive
MOOD
indicative
imperative
declarative
interrogative
neutral tone
marked tone
non-modal
modal
verbal
adverbial
complex
non-contrastive
contrastive
THEME
INFORM-
ATION
complex
(information
structure)
simple
unmarked
marked
unmarked focus
marked focus
COHESION
cohesive
non-cohesive
anaphoric
elliptical
pronominal subject
(others)
conjunct
non-conjunct
+ discourse theme
— discourse theme
THEMATIZ-
ATION
unmarked theme
marked theme
simple
complex
+ modal theme
— modal theme

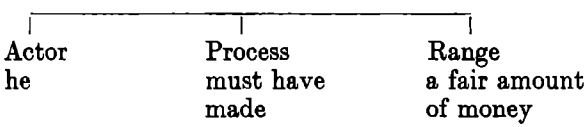
Figure 2

a set of structural 'roles' specified as realizations of the options selected. Options in transitivity, mood and theme all contribute to the specification of structural function. Not every clause constituent occupies a role in respect of all three—a modal adjunct, for example, has no transitivity role; on the other hand a constituent may have more than one role specified by one component, for example 'theme' and 'conjunctive' (both thematic functions), 'subject' and 'WH- element' (both modal functions). Moreover a role may extend over more than one element, for example rheme over process and goal, or modality over theme and rheme. In other words, the clause has a number of different but simultaneous constituent structures according to which set of options is being considered, as exemplified in Figure 3; the consequent overlapping of functions is shown in Table 2. This explains the minimal bracketing: such a componential analysis of structural function presupposes a 'rank' (string constituent) rather than an 'immediate constituent' view of linguistic structure.

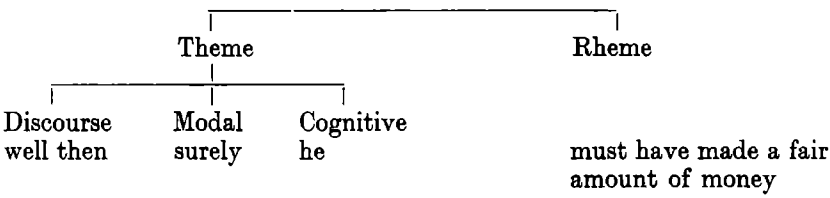
The assignment of clause options to the three components of transitivity, mood and theme reflects their interdependence: there is a relatively high degree of interdependence within each component and a relatively low degree (though not none) between the components. As already noted, the three are broadly defined. Mood includes not only the contextual functions of statement, question &c. but also options relating both to speaker's attitude and comment and to the structure of the predication. The range of possible attitudes and comments is dependent on the speech

Figure 3

Transitivity:



Theme (1):



Theme (2):

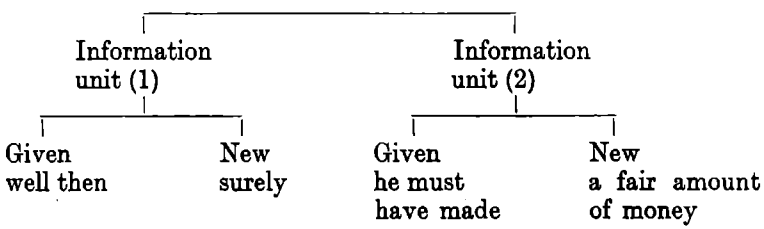


Table 1

Entry condition	Option selected	Realization statement	Resultant partial structure
Clause	major	insert Predicator/Process & Theme; Theme initial	*^Th·Pred/Proc·*
Major	extensive	insert Actor	*^Th·Pred/Proc·Ac·*
Major	indicative	insert Subject	*^Th·Pred/Proc·Ac·Su·*
Major	complex information structure	insert tone group boundaries initially & finally, plus one unplaced	*^Th·Pred/Proc·Ac·Su· //· //*
Major	cohesive	[none]	
Major	unmarked theme	conflate Subject with Theme	*//^Th/Su·Pred/Proc·Ac· //· //*
Extensive	descriptive	[specifies class of verb]	
Extensive	middle	conflate Actor with subject; [specifies voice of verb]	*//^Th/Su/Ac·Pred/Proc· //· //*
Descriptive	+ range	insert Range; concatenate with Process	*//^Th/Su/Ac·Pred/Proc^Ra· //· //*
Indicative	declarative	concatenate Predicator with Subject	*//^Th/Su/Ac^Pred/Proc^Ra· //· //*
Indicative	modal	insert Modality	*//^Th/Su/Ac^Pred/Proc^Ra·Mo· //· //*
Modal	complex	insert Modality_1; conflate with Predicator	*//^Th/Su/Ac^Pred/Proc/Mo_1^Ra·Mo· //· //*
Complex information structure	unmarked (information)	[specifies location of tone group boundary; see 'complex theme']	
Cohesive	anaphoric	insert Anaphoric	*//^Th/Su/Ac^Pred/Proc/Mo_1^Ra·Mo·An· //· //*
Cohesive	conjunct	insert Conjunctive	*//^Th/Su/Ac^Pred/Proc/Mo_1^Ra·Mo·An·Co· //· //*
Unmarked theme	complex theme	insert Theme_1 initially; [concatenate tone group boundary with it]	*//^Th_1^ //^Th/Su/Ac^Pred/Proc/Mo_1^Ra·Mo·An·Co· //*
Unmarked (information)	non-contrastive	insert [tone] 1 in first tone group	*//1^Th_1^ //^Th/Su/Ac^Pred/Proc/Mo_1^Ra·Mo·An·Co· //*
Unmarked (information)	unmarked focus	insert New in each tone group; [conflate with final element]	*//1^Th_1·Ne^//^Th/Su/Ac^Pred/Proc/Mo_1^Ra·Mo·An·Co·Ne^ //*
Unmarked (information) & declarative	neutral tone	insert [tone] 1 in second tone group	*//1^Th_1·Ne^ //1^Th/Su/Ac^Pred/Proc/Mo_1^Ra·Mo·An·Co·Ne^ //*
Anaphoric & indicative	pronominal subject	conflate Anaphoric with Subject	*//1^Th_1·Ne^ //1^Th/Su/Ac/An^Pred/Proc/Mo_1^Ra·Mo·Co·Ne^ //*
Conjunct & complex theme	discourse theme	conflate Conjunctive with Theme_1	*//1^Th_1/Co·Ne^ //1^Th/Su/Ac/An^Pred/Proc/Mo_1^Ra·Mo·Ne^ //*
Complex modality & complex theme	modal theme	insert Theme_2; concatenate with Theme_1; conflate Modality with it	*//1^Th_1/Co^Th_2/Mo/Ne^ //1^Th/Su/Ac/An^Pred/Proc/Mo_1^Ra/Ne^ //*

Table 2

Transitivity Mood (1) Mood (2) Theme (1) Theme (2)	$Theme_1$ Given well then	| Modal- | $Theme_2$ | New surely	| Actor | Subject [| $Theme_3$ | Given he	| Process | Predicator] -ity | Rheme must have made	| Range | Complement | | New a fair amount of money

function: hence the restrictions on comment adjuncts in interrogative, the different interpretation of the same intonation pattern in declarative and imperative, and so on; likewise the 'key' of an assertion or command, the specificity of a question, the degree of commitment, reservation or certainty are all modal options.[14] At the same time the predication is the carrier of speech function; it is the form of the predication that represents statement, question &c., and hence functions such as subject and predicator are modal functions. The term 'mood' refers to a set of related options which give structure to the speech situation and define the relations between speaker and interlocutors in a linguistic interaction.

Likewise theme subsumes not only theme—rheme and given—new but also other functions including those in various equative and substitutive structures, anaphoric reference &c; the term 'functional sentence perspective' is itself a recognition of the interrelatedness of this area of clause organization. In many cases this is characterized by a marked/unmarked relation between systems; for example the association of theme with given is an unmarked one.[15]

How the components may be interrelated is seen for example in the active/passive distinction in English, which can best be understood as the interaction of thematic options with those of transitivity. There may also be overlap in realization: *can may might should* &c. have two distinct meanings, one experiential, related to *is able to* &c., the other modal, related to adjectives such as *possible*, only the latter having the full non-finite tense range. Similarly intonation figures as the realization of both modal and thematic options.[16] More generally, one set of options may act as an environment restricting the selection or determining the interpretation of options within the other: for example, the range of choices of theme is less restricted in declarative than in interrogative, and the interpretation of the equative as a thematic option depends on transitivity.[17] Interrelations of this kind link what are otherwise independent networks of systems. The grammar of the English clause may, it is suggested, be represented in three such networks, which specify the range of possible options and their conditions of entry. With an analysis of structural function into components, the structure of the clause is seen to be determined by the selections made by the speaker from among the options available.

NOTES

* My thanks are due to A. Henrici, R. D. Huddleston and R. A. Hudson, on whose ideas I have drawn freely in the preparation of this paper.

[1] J. Vachek. *The Linguistic School of Prague* (Bloomington & London, 1966).

[2] M. A. K. Halliday, 'Notes on Transitivity and Theme in English II', *Journal of Linguistics* 3 : 2. 199-244 (London, 1967).

[3] Op. cit., 34.

[4] F. Daneš. 'A Three-Level Approach to Syntax', *Travaux linguistiques de Prague* 1. 225-40 (Prague, 1964): 'based on... relations [which] are derived from nature and society... e.g. actor and action; the bearer of a quality or of a state and the state; action and an object resulting from the action or touched by it, etc.: different circumstantial determinations (of place, time etc.); causal and final relations; relations of consequence, etc.'. I would prefer to separate the 'cognitive' (factual, experiential) from the logical (see below).

[5] I. Poldauf, 'The Third Syntactical Plan', *Travaux linguistiques de Prague* 1. 241-55 (Prague, 1964). But not, I think, the English beneficiary, which is a 'cognitive' function — though the very restricted 'ethic dative' does perhaps fall within this category.

[6] J. Vachek, op. cit., 59 ff.

[7] F. Daneš, op. cit., 227 ff.

[8] E. g. J. Firbas, 'On Defining the Theme in Functional Sentence Analysis', *Travaux linguistiques de Prague* 1. 267-80 (Prague, 1964); 'Non-Thematic Subjects in Contemporary English', *Travaux linguistiques de Prague* 2. 239—56 (Prague, 1966).

[9] For a discussion of intonation in relation to the grammar of the English clause see M.A.K. Halliday, *Intonation and Grammar in British English* (The Hague, 1967).

[10] Cf. reference in n. 2 above, and Part I of the same paper, in *Journal of Linguistics* 3 : 1.37-81 (London, 1967).

[11] For conventions see references contained in nn. 9, 10. For a systemic description of mood in French see Rodney Huddleston and Ormond Uren 'Declarative, Interrogative and Imperative in French', *Lingua* 20. (Amsterdam, forthcoming).

[12] That is to say, indicative must be realized before declarative, and extensive before descriptive; but extensive and indicative are unordered with respect to each other and either may be realized first. The realization statements are given in a simplified form, appropriate only to the given environment and the given order of realization; moreover the systemic and structural descriptions are themselves simplified, a number of distinct options being sometimes conflated (so that the realization statement is a composite). Boundary symbols are omitted from the partial structures.

[13] See R. A. Hudson, 'Constituency in a Systemic Description of the English Clause', *Lingua* 18 : 3. 225-50 (Amsterdam, 1967).

[14] Cf. reference in n. 9 above.

[15] Firbas (1964) notes both the distinction and the relation between the two variables of given—new and theme—rheme.

[16] The modal being in general realized by pitch-glide features ('tone') and the thematic by features of delimitation and prominence ('tonality' and 'tonicity'), although the distinction is not absolute: certain tone selections are thematic rather than modal (e.g. the choice between tone 1 and tone 4 in declarative clauses shows both the speaker's attitude, as being with or without reservation, and at the same time the relation of the clause to others in the discourse, tone 4 meaning 'but' and tone 1 meaning 'and'). It may be suggested that it is perhaps the very great part played by intonation in realizing thematic choices in English that has led to the suggestion, rightly rejected by Firbas (1966), that 'English is less susceptible to FSP than Czech'. It is difficult to account for the syntax of the English clause without regard to thematic organization.

[17] Cf. the discussion in Firbas (1966) of the association of thematic structure with definiteness.

RESUMÉ

Opce a funkce v anglické větě

Složky mluvnice jazyka mohou být vyjádřeny jako řady opcí (‚systémů'), z nichž každá specifikuje různé funkce v struktuře, např. opce transitivnosti specifikují větné funkce jako činitel a cíl. Struktura pak může být vyjádřena složkami. Každá věta má několik současných strukturních vyjádření, která jsou odvozena ze základního systémového popisu. Jako příkladu je užito věty z mluvené angličtiny.